

Application No. 09/759,593
Amendment dated 4 August 2003
Reply to Communication of 2 July 2003

Amendments to the Specification:

Please replace the paragraph on page 1, lines 9 through 12, with the following rewritten paragraph:

The present invention relates to a device capable of removing contaminants in a liquid, and a method and system for such a device. More particularly, this invention relates to a device used in a brewed beverage maker for removing contaminants in a liquid, and a method and system for such a device.

Please replace the paragraph on page 7, line 15 to page 8, line 3, with the following rewritten paragraph:

Wall 12 is preferably provided with a plurality of outwardly protruding extensions 18. Although, extensions 18 may extend from top rim 14 of wall 12 or at substantially any position between top rim 14 and a bottom rim 13, extensions 18 are preferably disposed in close proximity to bottom rim 13. Extensions 18 protrude outwardly a sufficient length to enable contact with brew basket 50 (see Fig. 4). It is preferable that extensions 18 are flexibly attached to wall 12 so that extensions 18 may move relative to wall 12. By flexibly connecting extensions 18 to wall 12, extensions 18 may pivot relative to wall 12 until to the top of device 10 sits below the top rim 51 of beverage brewing basket 50, while remaining above the brewing ingredients. The flexing area of extensions 18 are preferably designed to allow for maximum flexing with minimum force, without fracturing. Extensions 18 may be initially set perpendicular or at an angle relative to wall 12. Extensions 18 are preferably formed of the same or similar material as wall 12. Furthermore, extensions 18 are preferably integrally formed with wall 12.

Please replace the paragraph on page 9, line 12 to page 10, line 1, with the following rewritten paragraph:

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As shown in FIG. 5, filter medium 20 is most preferably a composite structure formed by an adsorbent supporting web substrate 71 having a surface 82 fused to a mixture of adsorbent particles 84 and binder particles 76. Adsorbent particles 84 are coalesced or fused together by binder particles 76, which are interposed therebetween. Also, some of the binder particles are fused to surface 82. The composite structure is preferably obtained according to the method described in United States Patent No. 5,792,513, issued on August 11, 1998, which is incorporated in its entirety herein by reference. As described therein, a mixture of adsorbent particles 84 and binder particles 76 is applied to part or all of surface 82, thereby producing a loose powder coating on surface 82. The loose powder coating is heated to at least the Vicat softening temperature of binder particles 76, but below the melting temperature of adsorbent supporting substrate 71 and adsorbent particles 84. Pressure is applied to web substrate 71 to cause the softened binder particles to coalesce, or fuse together, adsorbent particles 84, as well as adhere adsorbent particles 84 to adsorbent supporting web substrate 71.

Please replace the paragraph on page 10, line 3 to line 8, with the following rewritten paragraph:

Filtration medium 20 comprises an adsorbent supporting web substrate 71 that may be formed preferably using non-woven fibrous materials, such as the spun-bonded polyesters and polyolefins. Woven substrates may also be used. Furthermore, adsorbent supporting web substrate 71 may optionally be formed using cellulosic materials, such as paper, or a combination of cellulosic and thermoplastic fibers.

Please replace the paragraph on page 10, line 14 to page 11, line 3, with the following rewritten paragraph:

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Referring to FIG. 6, a filter medium 20 can be modified to include an overlying web substrate 88, which could be formed of materials similar to supporting web substrate 71. Overlying web substrate 88 has a surface 80 facing coated surface 82 of adsorbent supporting web substrate 71. Adsorbent particles 84 may also be adhered to surface 80 of overlying web substrate 88 by binder particles 76. The fusing of adsorbent particles 84, supporting substrate 71, and overlying web substrate 88 can be accomplished according to the disclosure in United States Patent No. 5,792,513. Essentially, after applying the mixture of adsorbent and binder particles to the surface of adsorbent supporting web substrate 70 to produce a powder coating covering at least a portion thereof, as described above, overlying web substrate 88 is applied over both adsorbent supporting web substrate 71 and the powder coating thereon. Heat and pressure is applied to adsorbent supporting web substrate 71 and overlying web substrate 88 to soften binder particles 76. The softened binder particles coalesce, or fuse together, adsorbent particles 84, as well as adhere adsorbent particles 84 to web substrates 71, 88.

Please replace the paragraph on page 11, lines 5 to 16, with the following rewritten paragraph:

Both the adsorbent supporting web substrate 71 and the overlying web substrate 88 may provide supplemental particulate filtration. For example, filter medium 20 can reduce certain waterborne oocysts when web substrate 71 and overlying web substrate 88 are composed of a fine hydrophilic particulate filter medium, potentially combined with adsorbents such as activated carbon and heavy metal adsorbing zeolites. Co-pending United States Patent Application Serial No. 09/140,924, filed August 27, 1998, and assigned to the assignee hereof describes a low flow resistance composite filter medium for capturing at least 99.95 percent of particulates of a size in the 3 to 4 micron range, such as oocysts, and dissolved

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chemical contaminants from a fluid that can be used as a high flow rate filter medium in the present invention. The subject matter of that application incorporated herein by reference in its entirety.